BRAIN RESEARCH

VOL. 741 NOS. 1,2 **CONTENTS** **25 NOVEMBER 1996**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Publisher's Note v

Guidelines for the submission of manuscripts vii

Research reports

A TTX-sensitive conductance underlying burst firing in isolated pyramidal neurons from rat neocortex
E. Guatteo, S. Franceschetti, A. Bacci, G. Avanzini and E. Wanke (Italy) 1

Opioid antagonists in the periaqueductal gray inhibit morphine and β-endorphin analgesia elicited from the amygdala of rats
Z.W. Pavlovic, M.L. Cooper and R.J. Bodnar (USA) 13

Rapid conversion of myelin-associated glycoprotein to a soluble derivative in primates
J.R. Möller (USA) 27

Centrally infused galanin-(1-15) but not galanin-(1-29) reduces the baroreceptor reflex sensitivity in the rat
Z. Díaz, J.A. Narváez, P.B. Hedlund, J.A. Aguirre, S. González-Barón and K. Fuxe (Spain, Sweden) 32

Dendritic shrinkage and dye-coupling between rat hippocampal CA1 pyramidal cells in the tetanus toxin model of epilepsy
S.B. Colling, W.D.-C. Man, A. Draguhn and J.G.R. Jefferys (UK, Germany) 38

Characterization of epileptiform field potentials recorded in the in vitro perirhinal cortex of amygdala-kindled epileptogenesis
Y. Matsumoto, N. Yamada, K. Morimoto, D.K. Bilkey and S. Kuroda (Japan, New Zealand) 44

Comparison of the developmental effects of two mercury compounds on glial cells and neurons in aggregate cultures of rat telencephalon
F. Monnet-Tschudi, M.-G. Zurich and P. Honegger (Switzerland) 52

Effects of nitric oxide on stimulated release of norepinephrine from female rat hypothalamic slices
H.-P. Chu and A.M. Etgen (USA) 60

L-Deprenyl fails to protect mesencephalic dopamine neurons and PC12 cells from the neurotoxic effect of 1-methyl-4-phenylpyridinium ion
F. Vaglini, C. Pardini, M. Cavalletti, R. Maggio and G.U. Corsini (Italy) 68

Cellular localisation of metabotropic glutamate receptors in the mammalian optic nerve: a mechanism for axon–glia communication
G. Jeffery, C. Sharp, B. Malitschek, T.E. Salt, R. Kuhn and T. Knöpfel (UK, Switzerland) 75

Pituitary adenylate cyclase-activating polypeptide protects rat-cultured cortical neurons from glutamate-induced cytotoxicity
H. Morio, I. Tatsuno, A. Hirai, Y. Tamura and Y. Saito (Japan) 82

Chronic amitriptyline exposure reduces 5-HT_3 receptor-mediated cyclic GMP formation in NG 108-15 cells
M. Shimizu, A. Nishida, H. Zensho and S. Yamawaki (Japan) 89

Inhibition of protein phosphatase-2B (calcineurin) activity towards Alzheimer abnormally phosphorylated τ by neuroleptics
C.-X. Gong, S. Shaikh, I. Grundke-Iqbal and K. Iqbal (USA) 95

Complete recovery by nerve growth factor of neuropeptide content and function in capsaicin-impaired sensory neurons
J. Donnerer, R. Amann, R. Schuligoi and G. Skofitsch (Austria) 103

Forebrain contribution to the induction of a brainstem correlate of conditioned taste aversion: I. The amygdala
G.E. Schafe and I.L. Bernstein (USA) 109

Inhibition of sexual behaviour and the luteinizing hormone surge by intracerebral progesterone implants in the female sheep
D. Blache, C. Fabre-Nys and G. Venier (France) 117

Calretinin mRNA and immunoreactivity in the medullary reticular formation of the rat: colocalization with glutamate receptors
L. Winsky, K.R. Isaacs and D.M. Jacobowitz (USA) 123

Neuronal cytotoxicity of inositol hexakisphosphate (phytate) in the rat hippocampus
G.J. Lees and W. Leong (New Zealand) 134

A post mortem study on neurochemical markers of dopaminergic, GABA-ergic and glutamatergic neurons in basal ganglia-thalamocortical circuits in Parkinson syndrome
M. Gerlach, W. Gsell, J. Kornhuber, K. Jellinger, V. Krieger, F. Pantucek, R. Vock and P. Riederer (Germany, Austria) 142

Dextromethorphan reduces functional deficits and neuronal damage after global ischemia in rats
F. Block and M. Schwarz (Germany) 153

The effects of induced apneic episodes on cerebral cortical oxygenation in newborn piglets
O.K.T. Tammela, N. Lajevardi, C.-C. Huang, D.F. Wilson, M. Delivoria-Papadopoulos and A. Pastuszko (USA) 160

Characterization of L-α-aminoadipic acid transport in cultured rat astrocytes
M.J. Tsai, Y.-F. Chang, R. Schwarcz and N. Brookes (USA, Taiwan, ROC) 166

(contents continued on p. 359)

0006-8993(19961125)741:1/2;1-0

BRAIN RESEARCH

VOL. 741 NOS. 1,2 **CONTENTS** **25 NOVEMBER 1996**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Publisher's Note v

Guidelines for the submission of manuscripts vii

Research reports

A TTX-sensitive conductance underlying burst firing in isolated pyramidal neurons from rat neocortex
E. Guatteo, S. Franceschetti, A. Bacci, G. Avanzini and E. Wanke (Italy) 1

Opioid antagonists in the periaqueductal gray inhibit morphine and β-endorphin analgesia elicited from the amygdala of rats
Z.W. Pavlovic, M.L. Cooper and R.J. Bodnar (USA) 13

Rapid conversion of myelin-associated glycoprotein to a soluble derivative in primates
J.R. Möller (USA) 27

Centrally infused galanin-(1-15) but not galanin-(1-29) reduces the baroreceptor reflex sensitivity in the rat
Z. Díaz, J.A. Narváez, P.B. Hedlund, J.A. Aguirre, S. González-Barón and K. Fuxe (Spain, Sweden) 32

Dendritic shrinkage and dye-coupling between rat hippocampal CA1 pyramidal cells in the tetanus toxin model of epilepsy
S.B. Colling, W.D.-C. Man, A. Draguhn and J.G.R. Jefferys (UK, Germany) 38

Characterization of epileptiform field potentials recorded in the in vitro perirhinal cortex of amygdala-kindled epileptogenesis
Y. Matsumoto, N. Yamada, K. Morimoto, D.K. Bilkey and S. Kuroda (Japan, New Zealand) 44

Comparison of the developmental effects of two mercury compounds on glial cells and neurons in aggregate cultures of rat telencephalon
F. Monnet-Tschudi, M.-G. Zurich and P. Honegger (Switzerland) 52

Effects of nitric oxide on stimulated release of norepinephrine from female rat hypothalamic slices
H.-P. Chu and A.M. Etgen (USA) 60

L-Deprenyl fails to protect mesencephalic dopamine neurons and PC12 cells from the neurotoxic effect of 1-methyl-4-phenylpyridinium ion
F. Vaglini, C. Pardini, M. Cavalletti, R. Maggio and G.U. Corsini (Italy) 68

Cellular localisation of metabotropic glutamate receptors in the mammalian optic nerve: a mechanism for axon–glia communication
G. Jeffery, C. Sharp, B. Malitschek, T.E. Salt, R. Kuhn and T. Knöpfel (UK, Switzerland) 75

Pituitary adenylate cyclase-activating polypeptide protects rat-cultured cortical neurons from glutamate-induced cytotoxicity
H. Morio, I. Tatsuno, A. Hirai, Y. Tamura and Y. Saito (Japan) 82

Chronic amitriptyline exposure reduces 5-HT_3 receptor-mediated cyclic GMP formation in NG 108-15 cells
M. Shimizu, A. Nishida, H. Zensho and S. Yamawaki (Japan) 89

Inhibition of protein phosphatase-2B (calcineurin) activity towards Alzheimer abnormally phosphorylated τ by neuroleptics
C.-X. Gong, S. Shaikh, I. Grundke-Iqbal and K. Iqbal (USA) 95

Complete recovery by nerve growth factor of neuropeptide content and function in capsaicin-impaired sensory neurons
J. Donnerer, R. Amann, R. Schuligoi and G. Skofitsch (Austria) 103

Forebrain contribution to the induction of a brainstem correlate of conditioned taste aversion: I. The amygdala
G.E. Schafe and I.L. Bernstein (USA) 109

Inhibition of sexual behaviour and the luteinizing hormone surge by intracerebral progesterone implants in the female sheep
D. Blache, C. Fabre-Nys and G. Venier (France) 117

Calretinin mRNA and immunoreactivity in the medullary reticular formation of the rat: colocalization with glutamate receptors
L. Winsky, K.R. Isaacs and D.M. Jacobowitz (USA) 123

Neuronal cytotoxicity of inositol hexakisphosphate (phytate) in the rat hippocampus
G.J. Lees and W. Leong (New Zealand) 134

A post mortem study on neurochemical markers of dopaminergic, GABA-ergic and glutamatergic neurons in basal ganglia-thalamocortical circuits in Parkinson syndrome
M. Gerlach, W. Gsell, J. Kornhuber, K. Jellinger, V. Krieger, F. Pantucek, R. Vock and P. Riederer (Germany, Austria) 142

Dextromethorphan reduces functional deficits and neuronal damage after global ischemia in rats
F. Block and M. Schwarz (Germany) 153

The effects of induced apneic episodes on cerebral cortical oxygenation in newborn piglets
O.K.T. Tammela, N. Lajevardi, C.-C. Huang, D.F. Wilson, M. Delivoria-Papadopoulos and A. Pastuszko (USA) 160

Characterization of L-α-aminoadipic acid transport in cultured rat astrocytes
M.J. Tsai, Y.-F. Chang, R. Schwarcz and N. Brookes (USA, Taiwan, ROC) 166

(contents continued on p. 359)

0006-8993(19961125)741:1/2;1-0

(contents continued)

Anoxic terminal negative DC-shift in human neocortical slices in vitro
R. Köhling, A. Schmidinger, S. Hülsmann, S. Vanhatalo, A. Lücke, H. Straub, E.-J. Speckmann, I. Tuxhorn, P. Wolf, R. Lahl, H. Pannek, F. Oppel, C. Greiner, D. Moskopp and H. Wassmann (Germany, Finland) 174
Distribution of phosphoneuroprotein 14 (PNP 14) in vertebrates: its levels as determined by enzyme immunoassay
S. Nakajo, K. Tsukada, H. Kameyama, Y. Furuyama and K. Nakaya (Japan) 180
1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine-induced neurotoxicity in non-human primates is antagonized by pretreatment with nimodipine at the nigral, but not at the striatal level
A. Kupsch, J. Sautter, J. Schwarz, P. Riederer, M. Gerlach and W.H. Oertel (Germany) 185
Immunoreactivity of growth inhibitory factor in normal rat brain and after stab wounds — an immunocytochemical study using confocal laser scan microscope
I. Hozumi, T. Inuzuka, H. Ishiguro, M. Hiraiwa, Y. Uchida and S. Tsuji (Japan, USA) 197
Persistence of nonphotic phase shifts in hamsters after serotonin depletion in the suprachiasmatic nucleus
K.J. Bobrzynska, N. Vrang and N. Mrosovsky (Canada, Denmark) 205
The effects of intranasal infusion of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) upon catecholamine concentrations within olfactory bulbs and corpus striatum of male mice
D.E. Dluzen and G. Kefalas (USA) 215
Role of catecholamines in the frontal cortex in the modulation of basal and stress-induced autonomic output in rats
D. Funk and J. Stewart (Canada) 220
Identification of a saturable uptake system for deoxyribonucleosides at the blood–brain and blood–cerebrospinal fluid barriers
S.A. Thomas née Williams and M.B. Segal (UK) 230
Involvement of $GABA_B$ receptor systems in experimental depression: baclofen but not bicuculline exacerbates helplessness in rats
Y. Nakagawa, T. Ishima, Y. Ishibashi, Minoru Tsuji and T. Takashima (Japan) 240
Chronic, post-injury administration of D-cycloserine, an NMDA partial agonist, enhances cognitive performance following experimental brain injury
M.D. Temple and R.J. Hamm (USA) 246
Preconditioning of primary rat neuronal cultures against ischemic injury: characterization of the 'time window of protection'
A. Reshef, O. Sperling and E. Zoref-Shani (Israel) 252
Modulation of morphine-induced antinociception by ibogaine and noribogaine
A.A. Bagal, L.B. Hough, J.W. Nalwalk and S.D. Glick (USA) 258
Distribution of α_2-adrenoceptors in the human locus coeruleus
V. Klimek and G.A. Ordway (USA) 263
Etorphine elicits anomalous excitatory opioid effects on sensory neurons treated with GM1 ganglioside or pertussis toxin in contrast to its potent inhibitory effects on naive or chronic morphine-treated cells
S.M. Crain and K.-F. Shen (USA) 275
Constructional apraxia in Alzheimer's disease correlates with neuritic neuropathology in occipital cortex
K.A. Nielson, B.J. Cummings and C.W. Cotman (USA) 284
Fructose-1,6-bisphosphate after hypoxic ischemic injury is protective to the neonatal rat brain
A. Sola, M. Berrios, R.A. Sheldon, D.M. Ferriero and G.A. Gregory (USA) 294
Different central opioid receptor subtype antagonists modify maltose dextrin and deprivation-induced water intake in sham feeding and sham drinking rats
L. Leventhal and R.J. Bodnar (USA) 300
Neuronal expression of Fos-like protein along the afferent pathway of the milk-ejection reflex in the sheep
A. Tsingotjidou and G.C. Papadopoulos (Greece) 309
Differential induction of Fos in the female rat brain following different amounts of vaginocervical stimulation: modulation by steroid hormones
J.G. Pfaus, C. Marcangione, W.J. Smith, C. Manitt and H. Abillamaa (Canada) 314
Localization of nitric oxide synthase in the brain of the frog, *Xenopus laevis*
G. Brüning and B. Mayer (Germany, Austria) 331

Short communications

Sociosexual stimuli affect ER- and PR-mRNA abundance in the hypothalamus of all-female whiptail lizards
V. Hartman and D. Crews (USA) 344
Analysis of the retinohypothalamic tract in congenic albino and pigmented rats
A.M. Miller, R. Chappell, W.H. Obermeyer and R.M. Benca (USA) 348
Circadian rhythm in light response in suprachiasmatic nucleus neurons of freely moving rats
J.H. Meijer, K. Watanabe, L. Détàri and J. Schaap (The Netherlands, Japan, Hungary) 352

Author Index 356